

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An automatic gain control apparatus, comprising:

an RF automatic gain controller operable to control a ~~for controlling~~ gain of a radio frequency signal;

a frequency converter operable to frequency convert the ~~for frequency converting~~ said radio frequency signal into an intermediate frequency signal;

an IF automatic gain controller operable to control a ~~for controlling~~ gain of the said intermediate frequency signal;

a level detector operable to detect ~~for detecting~~ a signal level of the intermediate frequency signal with the said gain controlled, and operable to generate ~~generating~~ a level signal; and

an automatic gain control signal generator operable to generate ~~for generating~~, based on the said level signal, an RF automatic gain control signal for controlling said RF automatic gain controller and an IF automatic gain control signal for controlling said IF automatic gain controller, so as to separately control said ~~the~~ RF automatic gain controller and said ~~the~~ IF automatic gain controller,

wherein said automatic gain control signal generator either fixes the gain of said IF automatic gain controller if a level, indicated by the level signal, is higher than one of a plurality of predetermined levels and lower than or equal to another one of the plurality of predetermined levels, or else changes the gain of said IF automatic gain controller.

2. (Original) The automatic gain control apparatus according to claim 1, wherein
if said level signal indicates a level equal to or lower than a first predetermined level,
said automatic gain control signal generator fixes the gain of said RF automatic gain

controller to a maximum value, and changes the gain of said IF automatic gain controller,

if said level signal indicates a level higher than said first predetermined level and equal to or lower than a second predetermined level, said automatic gain control signal generator fixes the gain of said IF automatic gain controller to the first predetermined value, and changes the gain of said RF automatic gain controller, and

if said level signal indicates a level higher than said second predetermined level, said automatic gain control signal generator fixes the gain of said RF automatic gain controller to a second predetermined value, and changes the gain of said IF automatic gain controller.

3. (Original) The automatic gain control apparatus according to claim 1, wherein

if said level signal indicates a level equal to or lower than a third predetermined level, said automatic gain control signal generator fixes the gain of said RF automatic gain controller to a maximum value,

if said level signal indicates a level higher than said third predetermined level and equal to or lower than a fourth predetermined level, the automatic gain control signal generator changes the gain of said RF automatic gain controller,

if said level signal indicates a level higher than said fourth predetermined level, the automatic gain control signal generator fixes the gain of said RF automatic gain controller to a third predetermined value,

if said level signal indicates a level equal to or lower than a fifth predetermined level, the automatic gain control signal generator changes the gain of said IF automatic gain controller,

if said level signal indicates a level higher than said fifth predetermined level and equal to or lower than a sixth predetermined level, the automatic gain control signal generator fixes the gain of said IF automatic gain controller to a fourth predetermined value, and

if said level signal indicates a level higher than said sixth predetermined level, the automatic gain control signal generator changes the gain of said IF automatic gain controller.

4. (Original) The automatic gain control apparatus according to claim 2, further comprising:

a microcomputer for setting the first and second predetermined levels at which the gain of said RF automatic gain controller and the gain of said IF automatic gain controller is changed or fixed, a parameter indicating a gradient of the radio frequency signal to the RF automatic gain control signal while the gain of said RF automatic gain controller is changed, and a parameter indicating a gradient of the radio frequency signal to the IF automatic gain control signal while the gain of said IF automatic gain controller is changed.

5. (Original) The automatic gain control apparatus according to claim 3, further comprising:

a microcomputer for setting the third and fourth predetermined levels at which the gain of said RF automatic gain controller is changed or fixed according to said radio frequency signal, the fifth and sixth predetermined levels at which the gain of said IF automatic gain controller is changed or fixed according to said radio frequency signal, a parameter indicating a gradient of the radio frequency signal to the RF automatic gain control signal while the gain of said RF automatic gain controller is changed, and a parameter indicating a gradient of the radio frequency signal to the IF automatic gain control signal while the gain of said IF automatic gain controller is changed.